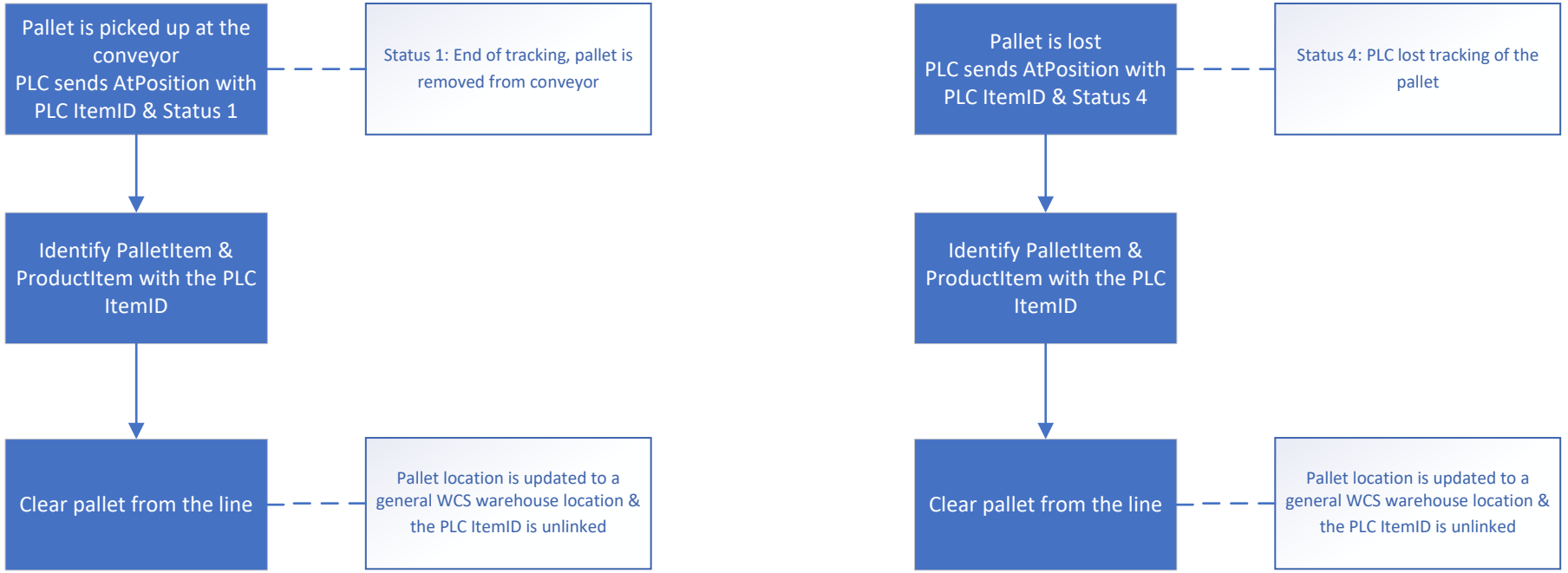

Pallet is picked up at the conveyor
PLC sends AtPosition with PLC ItemID & Status 1
Status 1: End of tracking, pallet is removed from conveyor
Identify PalletItem & ProductItem with the PLC ItemID
Clear pallet from the line
Pallet location is updated to a general WCS warehouse location & the PLC ItemID is unlinked
Pallet is lost
PLC sends AtPosition with PLC ItemID & Status 4
Status 4: PLC lost tracking of the pallet
Identify PalletItem & ProductItem with the PLC ItemID
Clear pallet from the line
Pallet location is updated to a general WCS warehouse location & the PLC ItemID is unlinked

Passthrough Conveyor

Pallet arrives at conveyor PLC sends AtPosition with PLC ItemID & Status 3

Status 3: pallet is at position

Identify PalletItem & ProductItem with the PLC ItemID

A SetDestination telegram is only sent when that is configured for the conveyor

Pallet found?

N

Set FinalDestination of the pallet to the eject conveyor of the current conveyor & send pallet to the next linked conveyor

Y

Update PalletItem & ProductItem location to current conveyor

Send PalletData?

N

Y

Send PalletData for Finished and Semi-Finished Goods

N

Finished Goods Pallet and send PalletData for Finished Goods only

Y

N

Semi-Finished Goods Pallet and send PalletData for Semi-Finished Goods only

Y

Y

Y

Configurable on the conveyor

N

Send PalletData telegram to WMS

Send PalletAtLocation ?

N

Y

Send PalletAtLocation telegram to WMS

Send PalletData to AWH?

N

Y

Send PalletDataV2 telegram to AWH

Send pallet to the next linked conveyor

If there is no next conveyor configured, the pallet is sent to the current conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Hooder Conveyor

Pallet arrives at conveyor PLC sends AtPosition with PLC ItemID & Status 3

Status 3: pallet is at position

Identify PalletItem & ProductItem with the PLC ItemID

Pallet found?

N

Set FinalDestination of the pallet to the eject conveyor of the current conveyor & send pallet to the next linked conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Y

The FinalDestination of the PalletItem is set to the current conveyor

Current conveyor is the destination?

N

Send pallet to the next linked conveyor

Y

Update PalletItem & ProductItem location to current conveyor

Send PalletData?

N

Y

Send PalletData for Finished and Semi-Finished Goods

N

Y

Finished Goods Pallet and send PalletData for Finished Goods only

N

Y

Semi-Finished Goods Pallet and send PalletData for Semi-Finished Goods only

Y

Configurable on the conveyor

N

Send PalletData telegram to WMS

Send PalletAtLocation ?

N

Y

Send PalletAtLocation telegram to WMS

Send PalletData to AWH?

N

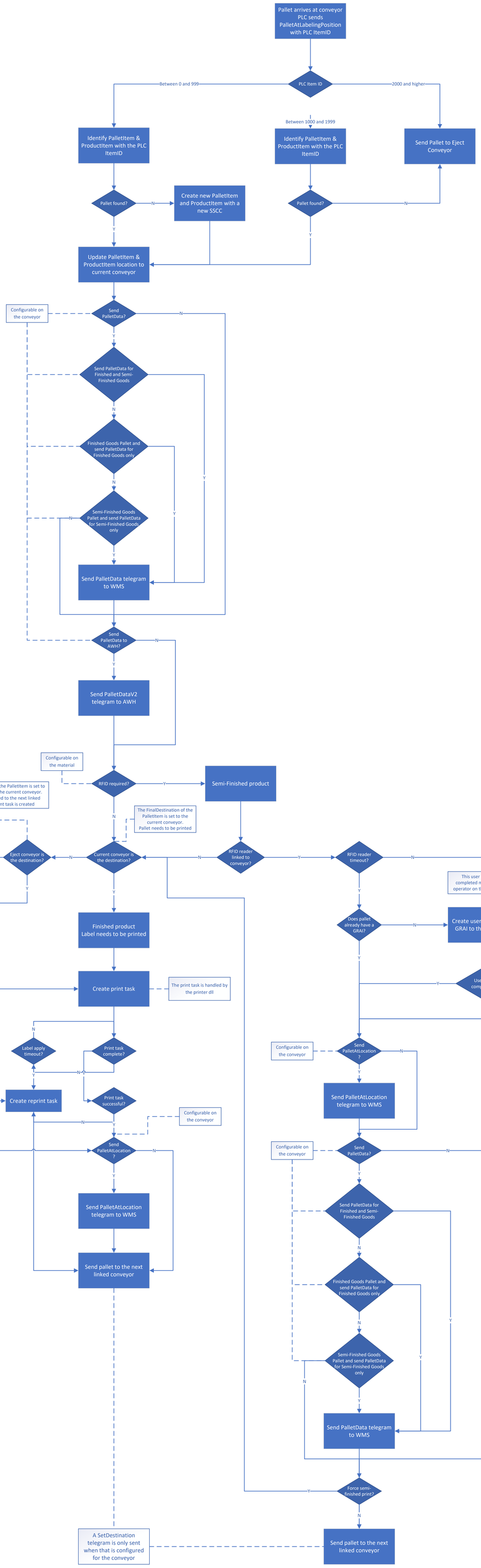
Y

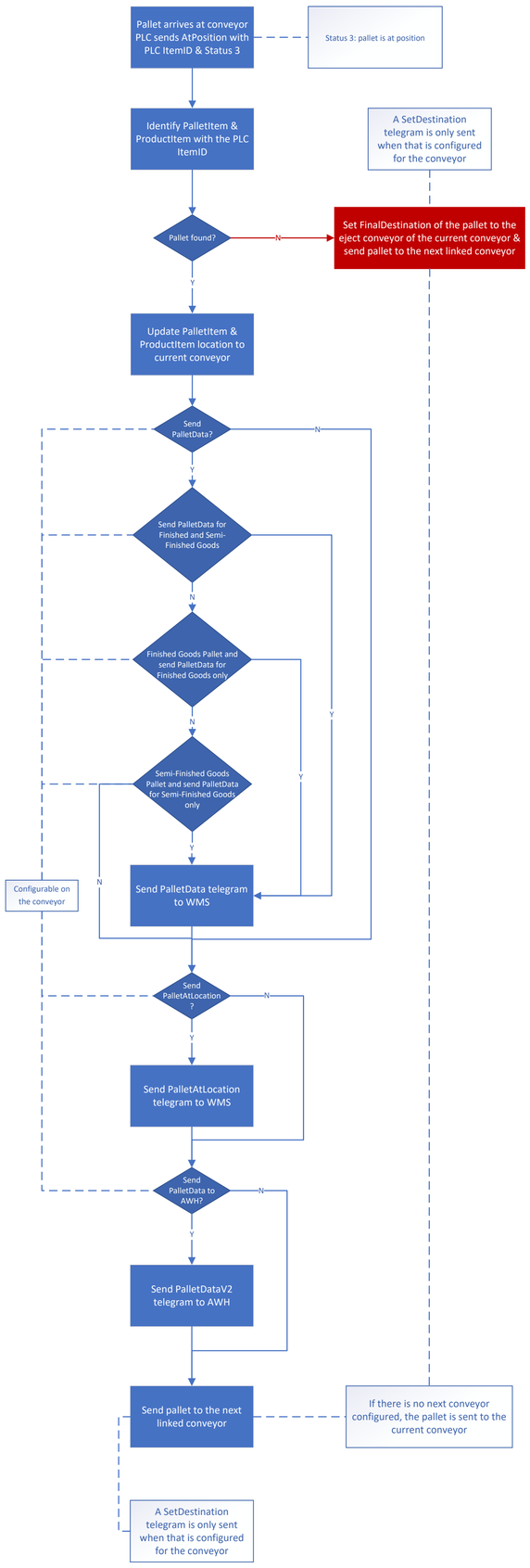
Send PalletDataV2 telegram to AWH

Send pallet to the next linked conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Print and Labeling Conveyor





Palletizer Conveyor

Pallet arrives at conveyor
PLC sends AtPosition with
PLC ItemID & Status 0 or 3

Status 0: New pallet, start of tracking
Status 3: pallet is at position

If PLC Status = 0
AND
Parameter on the conveyor is checked (configurable on the conveyor)

Create new pallet?

N

Y

Create new PalletItem

Identify the PalletItem by PLC ItemID

PalletItem found?

N

Send pallet to the eject conveyor of the current conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Y

The FinalDestination of the PalletItem is set to the eject conveyor of the current conveyor

Destination of the pallet is the eject?

Y

Pallet doesn't need to be palletized
Send pallet to next linked conveyor

N

PalletItem has a ProductItem?

Y

N

Create new ProductItem with a new SSCC

Update PalletItem & ProductItem location to current conveyor

Send PalletData?

N

Y

Send PalletData for Finished and Semi-Finished Goods

N

Finished Goods Pallet and send PalletData for Finished Goods only

Y

N

Semi-Finished Goods Pallet and send PalletData for Semi-Finished Goods only

Y

Y

Y

Send PalletData telegram to WMS

Configurable on the conveyor

N

Send PalletAtLocation ?

N

Y

Send PalletAtLocation telegram to WMS

Send PalletData to AWH?

N

Y

Send PalletDataV2 telegram to AWH

Semi-Finished product?

N

Y

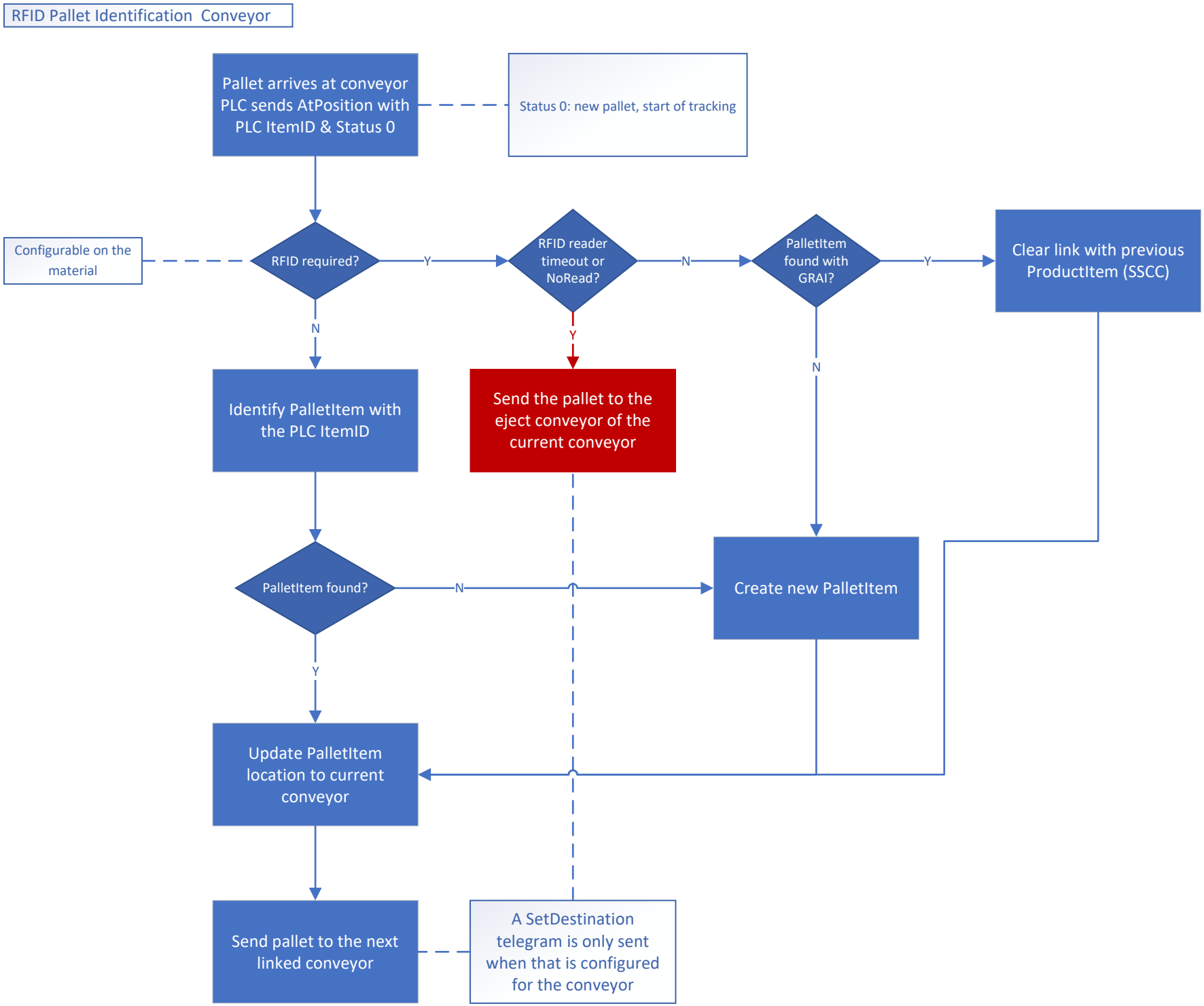
Set the FinalDestination of the pallet to the SemiFinishedProductFinalDestination

Set the FinalDestination of the pallet to the FinishedProductFinalDestination

(Semi)FinishedProductFinalDestination is configurable on the conveyor

Send pallet to the next linked conveyor

A SetDestination telegram is only sent when that is configured for the conveyor


RFID Pallet Identification Conveyor
Pallet arrives at conveyor PLC sends AtPosition with PLC ItemID & Status 0
Status 0: new pallet, start of tracking
Configurable on the material
RFID required?
Y
RFID reader timeout or NoRead?
N
PalletItem found with GRAI?
Y
Clear link with previous ProductItem (SSCC)
N
Y
N
Identify PalletItem with the PLC ItemID
Send the pallet to the eject conveyor of the current conveyor
PalletItem found?
N
Create new PalletItem
Y
Update PalletItem location to current conveyor
Send pallet to the next linked conveyor
A SetDestination telegram is only sent when that is configured for the conveyor

Product Identification Conveyor

Pallet arrives at conveyor PLC sends AtPosition with PLC ItemID & Status 0

Status 0: start of tracking

RFID reader timeout or NoRead?

Y

Send pallet to the eject conveyor of the current conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

N

Pallet found with SSCC?

N

Y

Update PalletItem & ProductItem location to current conveyor

Send PalletData?

N

Y

Send PalletData for Finished and Semi-Finished Goods

N

Finished Goods Pallet and send PalletData for Finished Goods only

Y

N

Semi-Finished Goods Pallet and send PalletData for Semi-Finished Goods only

Y

Y

Y

Configurable on the conveyor

N

Send PalletData telegram to WMS

Send PalletAtLocation ?

N

Y

Send PalletAtLocation telegram to WMS

Send PalletData to AWH?

N

Y

Send PalletDataV2 telegram to AWH

Send pallet to the next linked conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Manual Workstation Conveyor

Pallet arrives at conveyor PLC sends AtPosition with PLC ItemID & Status 3

Status 3: pallet is at position

Identify PalletItem & ProductItem with the PLC ItemID

Pallet found?

N

Create new user task

Y

Update PalletItem & ProductItem location to current conveyor

The FinalDestination of the PalletItem is set to the current conveyor
This means that there is a user task to be completed manually by the operator on the UI or scanner

Current conveyor is the destination?

Y

User task completed?

N

User task cancelled?

N

Y

Y

N

Send pallet to the next linked conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Send PalletData?

N

Y

Send PalletData for Finished and Semi-Finished Goods

N

Finished Goods Pallet and send PalletData for Finished Goods only

N

Y

Semi-Finished Goods Pallet and send PalletData for Semi-Finished Goods only

Y

Y

N

Configurable on the conveyor

Send PalletData telegram to WMS

Send PalletAtLocation ?

N

Y

Send PalletAtLocation telegram to WMS

Send PalletData to AWH?

N

Y

Send PalletDataV2 telegram to AWH

Send pallet to the next linked conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Pallet Reintroduction Conveyor

Pallet arrives at conveyor PLC sends AtPosition with PLC ItemID & Status 3

Status 3: pallet is at position

PLC ItemID > 1000 and < 2000

Reintroduced pallet?

Y

Identify PalletItem & ProductItem with the PLC ItemID

Pallet found?

N

Conveyor has RFID reader?

Y

Pallet found with GRAI?

N

Pallet found with SSCC?

N

RFID reader timeout or NoRead?

N

Y

Y

Y

N

Create manual reintroduction task

N

Pallet has SSCC?

Y

N

Operator completed user task?

N

User task timeout?

Y

Y

Reintroduction successful?

N

Y

Set FinalDestination of the pallet to the eject conveyor of the current conveyor & send pallet to the eject conveyor of the current conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Identify PalletItem & ProductItem with the PLC ItemID

A SetDestination telegram is only sent when that is configured for the conveyor

Pallet found?

N

Set FinalDestination of the pallet to the eject conveyor of the current conveyor & send pallet to the eject conveyor of the current conveyor

Y

Update PalletItem & ProductItem location to current conveyor

Is pallet Dissolved?

Y

Send pallet to the eject conveyor

N

Send PalletData?

N

Y

Send PalletData for Finished and Semi-Finished Goods

N

Finished Goods Pallet and send PalletData for Finished Goods only

N

Y

Semi-Finished Goods Pallet and send PalletData for Semi-Finished Goods only

Y

N

Y

Configurable on the conveyor

Send PalletData telegram to WMS

Send PalletAtLocation ?

N

Y

Send PalletAtLocation telegram to WMS

Send PalletData to AWH?

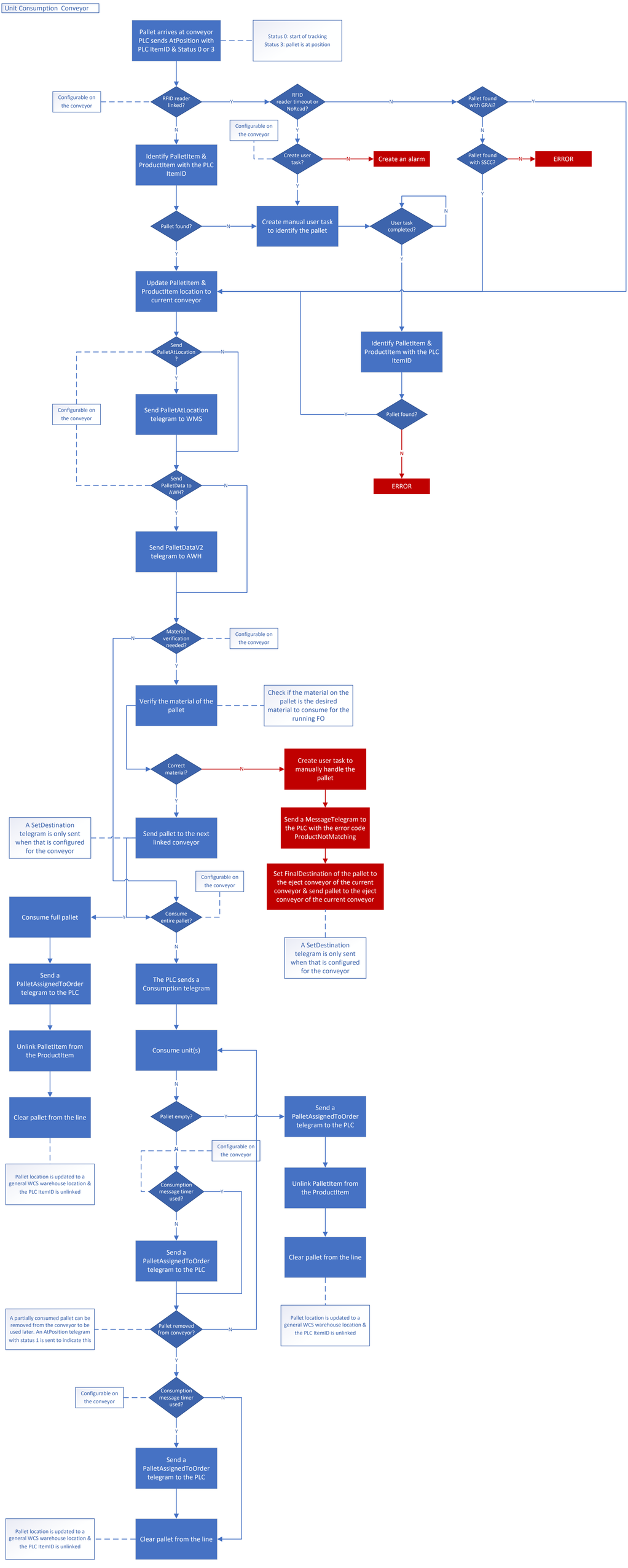
N

Y

Send PalletDataV2 telegram to AWH

Send pallet to the next linked conveyor

A SetDestination telegram is only sent when that is configured for the conveyor


Unit Consumption Conveyor
Pallet arrives at conveyor PLC sends AtPosition with PLC ItemID & Status 0 or 3
Status 0: start of tracking
Status 3: pallet is at position
Configurable on the conveyor
RFID reader linked?
Y
RFID reader timeout or NoRead?
N
Pallet found with GRAI?
Y
N
Configurable on the conveyor
Y
Create user task?
N
Create an alarm
Pallet found with SSCC?
N
ERROR
Y
Identify PalletItem & ProductItem with the PLC ItemID
Pallet found?
N
Create manual user task to identify the pallet
User task completed?
N
Y
Y
Update PalletItem & ProductItem location to current conveyor
Send PalletAtLocation ?
N
Y
Configurable on the conveyor
Send PalletAtLocation telegram to WMS
Identify PalletItem & ProductItem with the PLC ItemID
Pallet found?
Y
N
ERROR
Send PalletData to AWH?
N
Y
Send PalletDataV2 telegram to AWH
Material verification needed?
N
Configurable on the conveyor
Y
Verify the material of the pallet
Check if the material on the pallet is the desired material to consume for the running FO
Correct material?
N
Create user task to manually handle the pallet
Y
Send a MessageTelegram to the PLC with the error code ProductNotMatching
A SetDestination telegram is only sent when that is configured for the conveyor
Send pallet to the next linked conveyor
Set FinalDestination of the pallet to the eject conveyor of the current conveyor & send pallet to the eject conveyor of the current conveyor
Configurable on the conveyor
Consume full pallet
Y
Consume entire pallet?
N
A SetDestination telegram is only sent when that is configured for the conveyor
Send a PalletAssignedToOrder telegram to the PLC
The PLC sends a Consumption telegram
Unlink PalletItem from the ProciuctItem
Consume unit(s)
Clear pallet from the line
N
Pallet empty?
Y
Send a PalletAssignedToOrder telegram to the PLC
Pallet location is updated to a general WCS warehouse location & the PLC ItemID is unlinked
Configurable on the conveyor
N
Consumption message timer used?
Y
Unlink PalletItem from the ProductItem
N
Send a PalletAssignedToOrder telegram to the PLC
Clear pallet from the line
A partially consumed pallet can be removed from the conveyor to be used later. An AtPosition telegram with status 1 is sent to indicate this
Pallet removed from conveyor?
N
Pallet location is updated to a general WCS warehouse location & the PLC ItemID is unlinked
Y
Configurable on the conveyor
Consumption message timer used?
N
Y
Send a PalletAssignedToOrder telegram to the PLC
Pallet location is updated to a general WCS warehouse location & the PLC ItemID is unlinked
Clear pallet from the line

Drop Off/Pick Up Conveyor

Pallet is dropped off at conveyor
PLC sends AtPosition with PLC ItemID & Status 0

Status 0: A new pallet is being introduced

Configurable on the conveyor

Identification Method = None

N

Identification Method = Conveyor Location

N

Unknown identifcation method
Send pallet to the eject conveyor of the current conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Y

PLC ItemID > 1000 and <2000

Reintroduced pallet?

N

Send pallet to the next linked conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Y

Get the pallet from the conveyor location

The pallet is already placed on the conveyor location by a forklift

Create new PalletItem

Pallet found?

N

Send pallet to the eject conveyor of the current conveyor

Y

N

Reintroduction Identification Enabled?

Conveyor Configuration

Y

Conveyor Configuration

RFID Reader Linked to Conveyor?

N

Create User Task for Identification

Y

NoRead/ Reader timeout or successful read

RFID Read Successful?

N

Create Task on Read Failure?

Y

Conveyor Configuration

N

Y

Identify Pallet on RFID read

Send Pallet to the eject conveyor

N

Task Identification Successful?

Task Timeout / Task rejected or successful completion

A SetDestination telegram is only sent when that is configured for the conveyor

Y

Pallet Found?

N

Y

Pallet Dissolved?

Y

N

Send PalletData?

N

Y

Send PalletData for Finished and Semi-Finished Goods

N

Finished Goods Pallet and send PalletData for Finished Goods only

N

Y

Semi-Finished Goods Pallet and send PalletData for Semi-Finished Goods only

Y

N

Configurable on the conveyor

Send PalletData telegram to WMS

Y

Send PalletAtLocation ?

N

Y

Send PalletAtLocation telegram to WMS

Send PalletData to AWH?

N

Y

Send PalletDataV2 telegram to AWH

Send pallet to the next linked conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Pallet arrives at conveyor
PLC sends AtPosition with PLC ItemID & Status 3

Status 3: pallet is at position
The pallet is passing through or needs to be picked up

Identify pallet item & product item with the PLC ItemID

Update PalletItem & ProductItem location to current conveyor

Send PalletData?

N

Y

Send PalletData for Finished and Semi-Finished Goods

N

Finished Goods Pallet and send PalletData for Finished Goods only

Y

N

Semi-Finished Goods Pallet and send PalletData for Semi-Finished Goods only

Y

N

Configurable on the conveyor

Send PalletData telegram to WMS

Y

Send PalletAtLocation ?

N

Y

Send PalletAtLocation telegram to WMS

Send PalletData to AWH?

N

Y

Send PalletDataV2 telegram to AWH

Pallet needs to be picked up?

N

If the FinalDestination of the ProductItem is set to the current conveyor
OR
If there is no next linked conveyor configured (EOL)

Y

Create pick up task

Buffer Conveyor

Pallet arrives at conveyor PLC sends AtPosition with PLC ItemID & Status 3

Status 3: pallet is at position

Identify PalletItem & ProductItem with the PLC ItemID

A SetDestination telegram is only sent when that is configured for the conveyor

Pallet found?

N

Send pallet to the eject conveyor of the current conveyor

Y

Send PalletData?

N

Y

Send PalletData for Finished and Semi-Finished Goods

N

Finished Goods Pallet and send PalletData for Finished Goods only

N

Y

Semi-Finished Goods Pallet and send PalletData for Semi-Finished Goods only

Y

Y

Configurable on the conveyor

N

Send PalletData telegram to WMS

Send PalletAtLocation ?

N

Y

Send PalletAtLocation telegram to WMS

Send PalletData to AWH?

N

Y

Send PalletDataV2 telegram to AWH

Update PalletItem & ProductItem location to current conveyor

Routing Conveyor

Pallet arrives at conveyor PLC sends AtPosition with PLC ItemID & Status 3

Status 3: pallet is at position

Identify PalletItem & ProductItem with the PLC ItemID

Pallet found?

N

Set FinalDestination of the pallet to the eject conveyor of the current conveyor & send pallet to the ejection conveyor of the current conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Y

Update PalletItem & ProductItem location to current conveyor

Send PalletData?

N

Y

Send PalletData for Finished and Semi-Finished Goods

N

Finished Goods Pallet and send PalletData for Finished Goods only

N

Y

Semi-Finished Goods Pallet and send PalletData for Semi-Finished Goods only

Y

Y

Configurable on the conveyor

N

Send PalletData telegram to WMS

Send PalletAtLocation ?

N

Y

Send PalletAtLocation telegram to WMS

Send PalletData to AWH?

N

Y

Send PalletDataV2 telegram to AWH

Pallet has a FinalDestination?

Y

N

Configurable on the material

OperationsMode is ProductType?

Configurable on the conveyor

Y

Get the destination from the material

Destination found?

Y

N

Set destination to the eject conveyor of the current conveyor

N

Get the destination from the configured routing

Configured in a custom table

Destination found?

Y

N

Get the default destination

Send pallet to the destination

A SetDestination telegram is only sent when that is configured for the conveyor

RFID Diverter Conveyor

Pallet arrives at conveyor
PLC sends AtPosition with PLC ItemID & Status 0 or 3

Status 0: new pallet, start of tracking
Status 3: pallet is at position

Configurable on the conveyor

IdentificationMethod = PLC ItemID tracking

IdentificationMethod = RFID identification

IdentificationMethod = Barcode identification

Unknown identifcation method
Send pallet to the eject destination of the current conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Identify PalletItem with the PLC ItemID

A SetDestination telegram is only sent when that is configured for the conveyor

Send pallet to the ejection conveyor of the current conveyor

PalletItem found?

A reintroduced pallet can already be identified with RFID on this conveyor. If not found, it is sent to the next conveyor to be (manually) identified at a pallet reintroduction conveyor later in the line

A reintroduced pallet can already be identified on a previous conveyor, in this case we do not need to wait for reading with an RFID reader as we already know the pallet by the ItemID.

PLC ItemID > 1000 and < 2000

Reintroduced pallet?

Pallet Already Identified?

RFID reader timeout or NoRead?

Pallet found with GRAI?

Create a new PalletItem with the scanned GRAI

Send pallet to the SemiFinishedRoutingPath conveyor

Configured on the conveyor

Send pallet to the next linked conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Identify PalletItem & ProductItem with the PLC ItemID

Pallet found?

Set FinalDestination of the pallet to the eject conveyor of the current conveyor & send pallet to the ejection conveyor of the current conveyor

Update PalletItem & ProductItem location to current conveyor

RFID reader linked?

RFID reader timeout or NoRead?

Create user task to identify pallet manually

Pallet found with SSCC?

Send pallet to the ejection conveyor of the current conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

PLC sends Metrics telegram with the same PLC ItemID as the AtPosition telegram & SSCC

The AtPosition task waits for the Metrics telegram to be sent

Metrics telegram status OK?

Send pallet to the ejection conveyor of the current conveyor

Pallet found with SSCC?

A SetDestination telegram is only sent when that is configured for the conveyor

Send PalletData?

Send PalletData for Finished and Semi-Finished Goods

Finished Goods Pallet and send PalletData for Finished Goods only

Semi-Finished Goods Pallet and send PalletData for Semi-Finished Goods only

Configurable on the conveyor

Send PalletData telegram to WMS

Send PalletAtLocation ?

Send PalletAtLocation telegram to WMS

Send PalletData to AWH?

Send PalletDataV2 telegram to AWH

OperationsMode = RFID required?

OperationsMode = Product Type Routing?

OperationsMode = Product List Routing?

OperationsMode = Product Setup?

OperationsMode = Storage Location Routing?

Unknown Operations Mode
Set FinalDestination of the pallet to the eject conveyor of the current conveyor & send pallet to the ejection conveyor of the current conveyor

Configurable on the material

RFID required?

Send pallet to the next linked conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Set FinalDestination of the pallet to the eject conveyor of the current conveyor & send pallet to the ejection conveyor of the current conveyor

RFID reader linked?

Create user task to identify pallet manually

RFID reader timeout or NoRead?

Pallet found with GRAI?

Link the GRAI to the PalletItem on the line

Send pallet to the SemiFinishedRoutingPath conveyor

Configured on the conveyor

Configured in a custom table

Get the destination from the configured routing for the material on the pallet

Destination found?

Send the pallet to the destination

Set FinalDestination of the pallet to the eject conveyor of the current conveyor & send pallet to the ejection conveyor of the current conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Configurable on the conveyor

Get the destination for the material on the pallet from the ProductList

Material on the list?

Send the pallet to the next linked conveyor

Send the pallet to the alternative linked conveyor

Configurable on the conveyor

Use alternative route as default?

Send the pallet to the next linked conveyor

Send the pallet to the alternative linked conveyor

Configurable on the material

Storage areas configured for material?

Set FinalDestination of the pallet to the eject conveyor of the current conveyor & send pallet to the ejection conveyor of the current conveyor

Find the best route for the pallet to go to get to one of the configured storage area

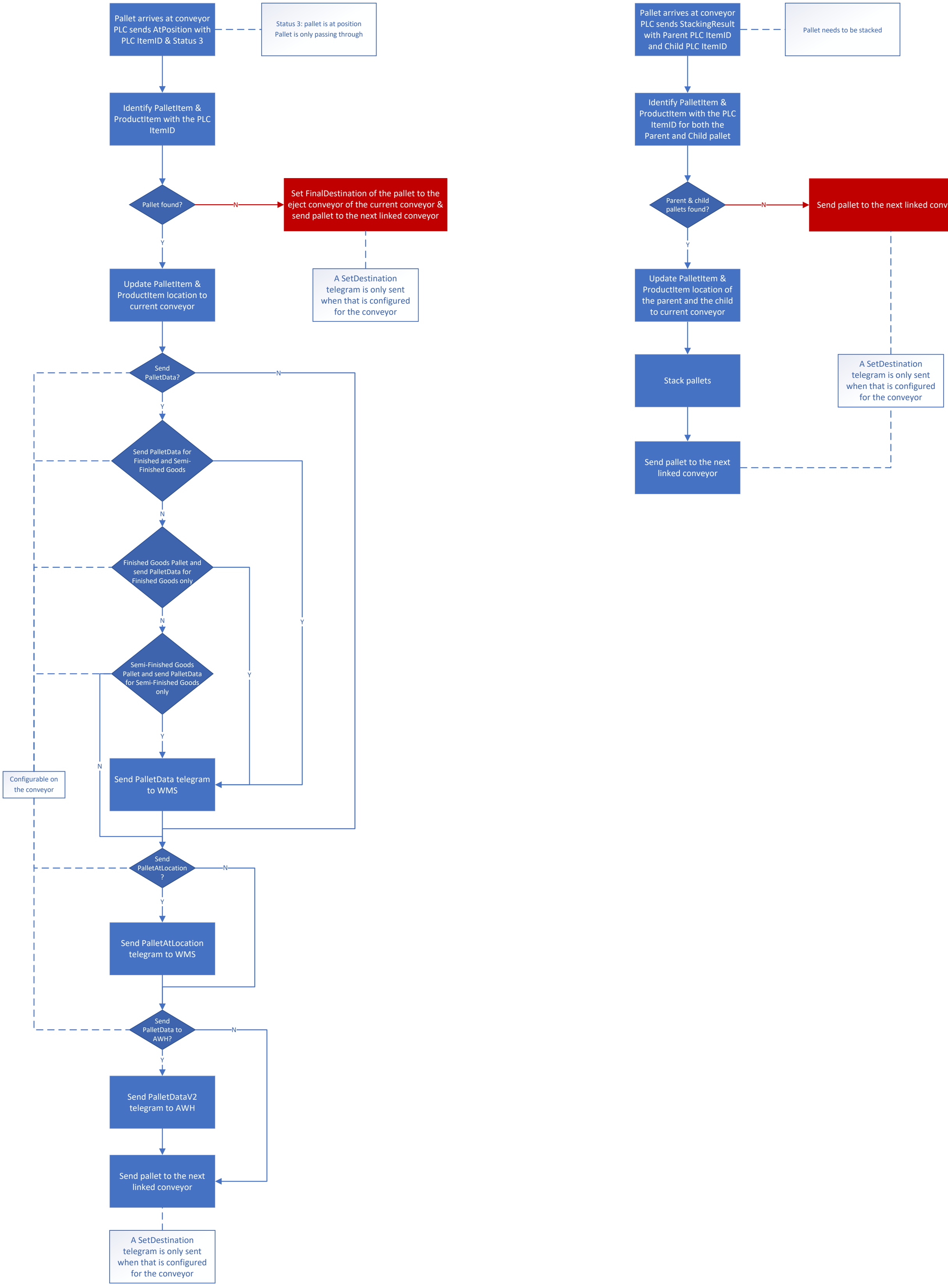
Configured on the conveyor are 4 possible routes. Each route has specific storage areas configured

Route found?

Send the pallet to the linked conveyor for that route

Configured on the conveyor

Stacker Conveyor



Grouping Conveyor

Pallet arrives at conveyor PLC sends AtPosition with PLC ItemID & Status 3

Status 3: pallet is at position

Identify PalletItem & ProductItem with the PLC ItemID

Pallet found?

N

Set FinalDestination of the pallet to the eject conveyor of the current conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Y

Update PalletItem & ProductItem location to current conveyor

Next conveyor free?

N

Y

Send pallet to the next linked conveyor

Send PalletData?

N

Y

Send PalletData for Finished and Semi-Finished Goods

N

Y

Finished Goods Pallet and send PalletData for Finished Goods only

N

Y

Semi-Finished Goods Pallet and send PalletData for Semi-Finished Goods only

Y

N

Send PalletData telegram to WMS

Configurable on the conveyor

Send PalletAtLocation ?

N

Y

Send PalletAtLocation telegram to WMS

Send PalletData to AWH?

N

Y

Send PalletDataV2 telegram to AWH

Grouping enabled?

N

Next conveyor free?

N

The next linked conveyor of a Grouping conveyor is always a Grouping Buffer. The pallets on the buffer are waiting to be grouped. So if they shouldn't be grouped, the pallet needs to wait for the buffer to clear first before it can be send there.

Configurable on the material

Y

Y

Next conveyor free?

Y

Send pallet to the next linked conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

N

Can pallets be grouped?

N

Y

Check if both pallets on the Grouping Conveyor and the Grouping Buffer are compatible on:

- Material
- Length
- Weight

Send GroupingRequest telegram to the PLC

Status 0 = Accepted
Status 1 = Completed
Status 2 = Failed

PLC sends GroupingResult telegram

Status 0 or 1?

N

Next conveyor free?

N

Y

Y

Group the two pallets together

Send pallet to the next linked conveyor

Send pallet to the next linked conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Group Buffer Conveyor

Pallet arrives at conveyor PLC sends AtPosition with PLC ItemID & Status 3

Status 3: pallet is at position

Identify PalletItem & ProductItem with the PLC ItemID

Pallet found?

N

Set FinalDestination of the pallet to the eject conveyor of the current conveyor & send pallet to the eject conveyor of the current conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Y

Update PalletItem & ProductItem location to current conveyor

Send PalletData?

N

Y

Send PalletData for Finished and Semi-Finished Goods

N

Finished Goods Pallet and send PalletData for Finished Goods only

N

Y

Semi-Finished Goods Pallet and send PalletData for Semi-Finished Goods only

Y

N

Configurable on the conveyor

Send PalletData telegram to WMS

Send PalletAtLocation ?

N

Y

Send PalletAtLocation telegram to WMS

Send PalletData to AWH?

N

Y

Send PalletDataV2 telegram to AWH

Configurable on the material

Grouping enabled?

Y

Previous pallet compatible for grouping?

Y

N

Grouping timeout?

Configurable on the conveyor

N

Y

Send pallet to the next linked conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Material Verification Conveyor

Pallet arrives at conveyor PLC sends AtPosition with PLC ItemID & Status 0 or 3

Status 0: new pallet, start of tracking
Status 3: pallet is at position

Pallet found with GRAI?

N

RFID Reader timeout or NoRead?

Y

Send a MessageTelegram to the PLC with the error code ProductNotFound

Set FinalDestination of the pallet to the eject conveyor of the current conveyor & send pallet to the eject conveyor of the current conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

N

Y

Update PalletItem & ProductItem location to current conveyor

Send PalletData?

N

Y

Send PalletData for Finished and Semi-Finished Goods

N

Finished Goods Pallet and send PalletData for Finished Goods only

N

Y

Semi-Finished Goods Pallet and send PalletData for Semi-Finished Goods only

Y

Send PalletData telegram to WMS

N

Configurable on the conveyor

Send PalletAtLocation ?

N

Y

Send PalletAtLocation telegram to WMS

Send PalletData to AWH?

N

Y

Send PalletDataV2 telegram to AWH

Verify the material of the pallet

Check if the material on the pallet is the desired material to consume for the running FO

Correct material?

N

Y

Create user task to manually handle the pallet

Send a MessageTelegram to the PLC with the error code ProductNotMatching

Send pallet to the next linked conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Set FinalDestination of the pallet to the eject conveyor of the current conveyor & send pallet to the eject conveyor of the current conveyor

Metrics Conveyor

Pallet arrives at conveyor PLC sends AtPosition with PLC ItemID and Status 0 or 3

Status 0: new pallet, start of tracking
Status 3: pallet at position

Identify PalletItem & BaleItem with the PLC ItemID

PalletItem found?

N

Create new PalletItem

Create new BaleItem with a new SSCC

Y

BaleItem found?

N

Set FinalDestination of the pallet to the eject conveyor of the current conveyor & send pallet to the eject conveyor of the current conveyor

Y

Send PalletData?

N

Y

Send PalletData for Finished and Semi-Finished Goods

N

Finished Goods Pallet and send PalletData for Finished Goods only

N

Semi-Finished Goods Pallet and send PalletData for Semi-Finished Goods only

Y

Y

Y

Send PalletData telegram to WMS

N

Configurable on the conveyor

Send PalletAtLocation ?

N

Y

Send PalletAtLocation telegram to WMS

Send PalletData to AWH?

N

Y

Send PalletDataV2 telegram to AWH

Update PalletItem & BaleItem location to current conveyor

An AtPosition telegram needs to be send first to ensure the PalletItem and BaleItem exist before sending the Metrics telegram

Pallet arrives at conveyor PLC sends Metrics telegram with PLC ItemID and specific metrics and status 0

Status 0: Metrics read OK
Metrics in the Metrics telegram can include:

- Length
- Width
- Height
- Weight
- Product Count

Identify PalletItem & BaleItem with the PLC ItemID

Y

Pallet found?

N

Set FinalDestination of the pallet to the eject conveyor of the current conveyor & send pallet to the eject conveyor of the current conveyor

Y

Update the BaleItem with the provided metrics

Send pallet to the next linked conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Pallet arrives at conveyor PLC sends Metrics telegram with PLC ItemID and status 1

Status 1: Metrics read failure

Identify PalletItem & BaleItem with the PLC ItemID

Y

PalletItem found?

N

Send pallet to the eject conveyor of the current conveyor

Y

BaleItem found?

N

Set FinalDestination of the pallet to the eject conveyor of the current conveyor & send pallet to the eject conveyor of the current conveyor

Operator uses UI to fill in the metrics manually

Create user task to process the bale manually

N

User task complete?

Y

User task succesful?

N

Set FinalDestination of the pallet to the eject conveyor of the current conveyor & send pallet to the eject conveyor of the current conveyor

Y

Send pallet to the next linked conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Fixed Barcode Reader Conveyor

Pallet arrives at conveyor PLC sends Metrics telegram with PLC ItemID & SSCC

Pallet found with SSCC?

N

Send pallet to the ejection conveyor of the current conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Y

Update PalletItem & ProductItem location to current conveyor

Configurable on the conveyor

Send PalletAtLocation ?

N

Y

Send PalletData for Finished and Semi-Finished Goods

N

Y

Finished Goods Pallet and send PalletData for Finished Goods only

N

Y

Semi-Finished Goods Pallet and send PalletData for Semi-Finished Goods only

Y

N

Send PalletAtLocation telegram to WMS

Send PalletData to AWH?

N

Y

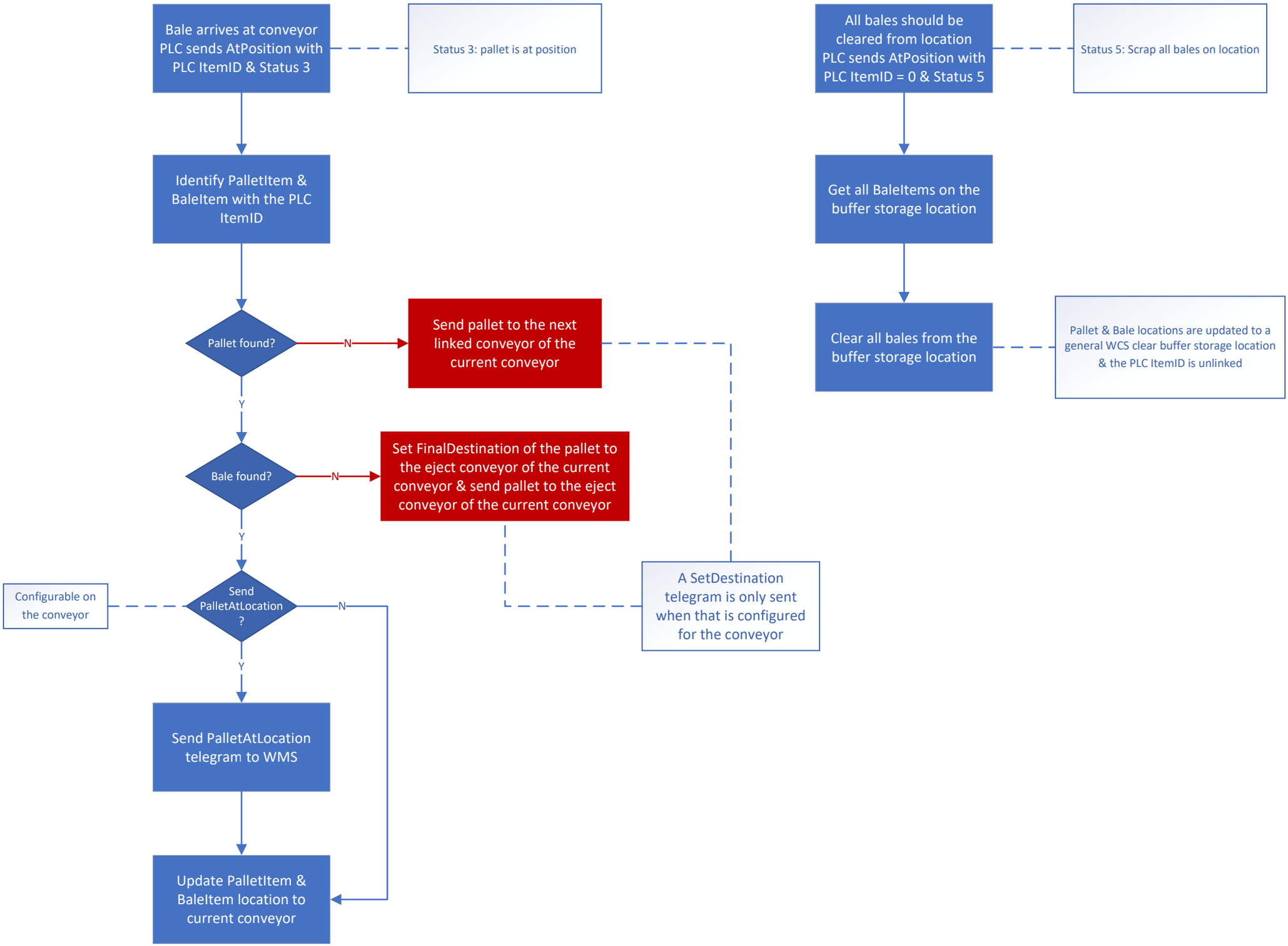
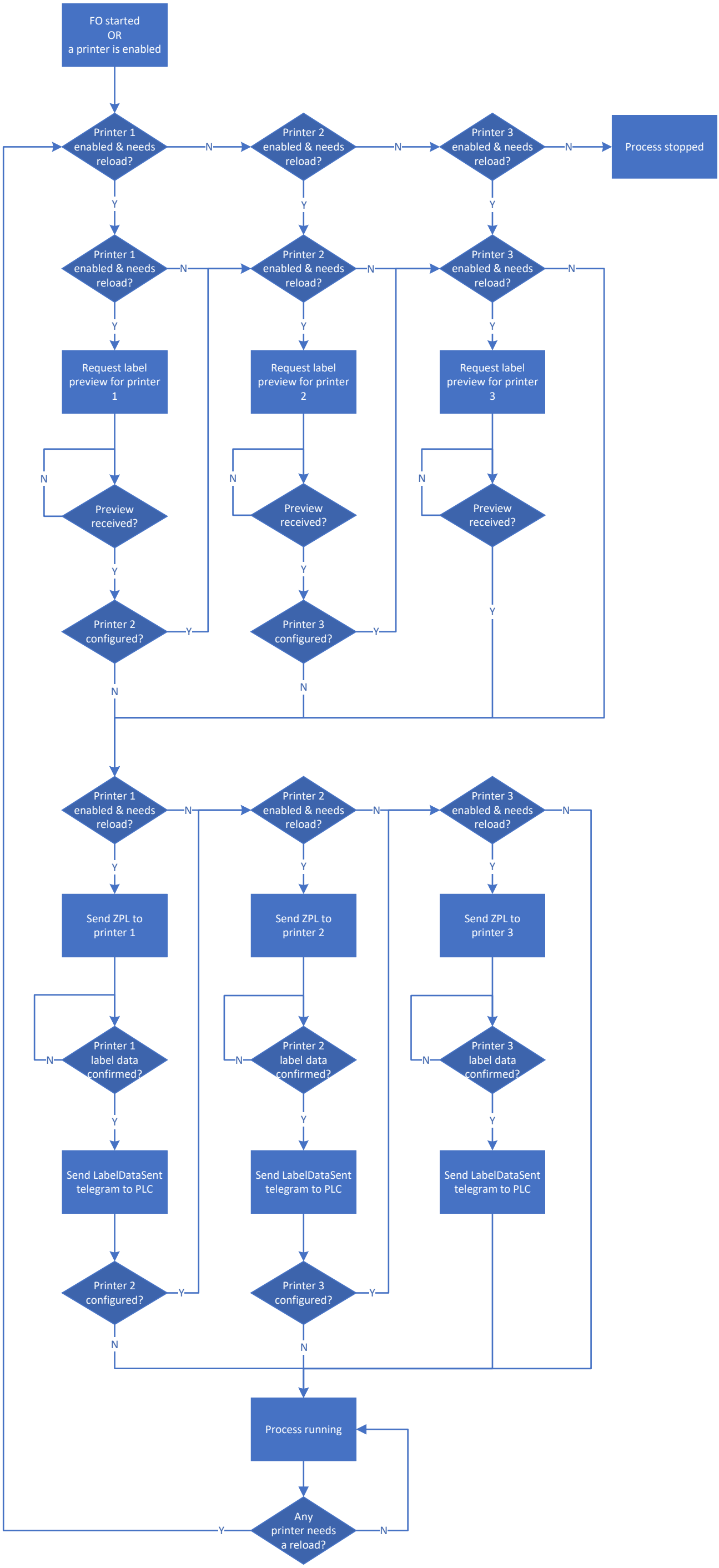
Send PalletDataV2 telegram to AWH

Send pallet to the next linked conveyor

A SetDestination telegram is only sent when that is configured for the conveyor

Workshop Workstation

Buffer Storage System



Colli Printing System